

adverse event in healthcare. Most are preventable through adherence to patient-care-practices. Hand hygiene is the most effective practice in preventing and controlling HCAI as well as community infections.

Clean Your Hands is a major component of the WHO First Global Patient Safety Challenge a global campaign to improve hand hygiene among health-care workers. Since 2008 Hong Kong Infection Control Nurses' Association (HKICNA) has been actively participating in the WHO Clean Hands Saves Lives campaign by various initiatives in different healthcare settings and in the community.

Methods and Results:

From 2008, during the 'World Health Carnival' a special booth has been organised to promote hand hygiene in the community every year. There were over a thousand attendee to participate in hand hygiene education and games annually.

In 2012, Poster design competition was organised to promote hand hygiene among health care workers. The winner posters have been used as talking wall in community and healthcare settings while some were used as design background of promotional gimmicks such as pen, tote bag etc. A hand-held electric fan was designed with visual lit up "hand hygiene" that again helps reminding healthcare workers the importance of hand hygiene.

Two Hand Hygiene Dances were designed to continuously support and promote WHO's initiative on hand hygiene. The two Hand Hygiene Dances demonstrate hand hygiene should start from young children to adulthood, from healthcare worker to different professions in the community. Both versions are highly promoted in hospitals and schools in Hong Kong and assessable in YouTube gaining thousands of 'likes'.

Conclusions: Hong Kong Infection Control Nurses' Association is fully committed in promoting infection prevention and control especially hand hygiene practices in healthcare and community. The endeavour of "Clean Hand Save Lives" will continue.

PS 1-158

FLUOROQUINOLONE PRESCRIBING IN TAIWAN, 2000 TO 2010

Shu-Chen Kuo^a, Shu-Man Shih^b, Tsai-Ling Yang^a, Lauderdale^a, Yee-Chun Chen^a, Chao A. Hsiung^b. ^aNational Institute of Infectious Diseases and Vaccinology, National Health Research Institutes, Zhunan, Taiwan; ^bInstitute of Population Health Sciences, National Health Research Institutes, Zhunan, Taiwan

Purpose: The Taiwan Surveillance of Antimicrobial Resistance showed emergence and increasing fluoroquinolone (FQ) resistance in many important pathogens in Taiwan, including *Escherichia coli*, *Streptococcus pneumoniae*, *Haemophilus influenzae*, and other species, which may indicate common selective pressure exerted by increased antibiotic use. This study describes changes in FQ usage in Taiwan.

Methods: This retrospective study determined the prescriptions of FQs from 2000 to 2010 using the sampling database from the National Health Insurance. Prescriptions of amoxicillin were used for comparison. Indications of prescriptions were based on International Classification of Diseases, Ninth Revision, Clinical Modification. The clinical characteristics of patients for whom FQs were prescribed were analyzed. IMS was used to estimate the amount of self-paid or inventory FQs.

Results: Oral FQs in the outpatient department accounted for 84.6% of all FQs prescribed. Compared to oral amoxicillin, the prescription of oral FQs increased in recent years (odds ratio 1.089, 95% confidence interval 1.084-1.094). Non-US FDA indications accounted for 56.5% of all prescriptions. Respiratory tract, urinary tract, intra-abdominal and gastrointestinal infections accounted for 90% of approved indications. The specialties that most FQ prescribing occurred were otorhinolaryngology and family practice. Economic considerations, over the counter use, and treatment guideline recommendations are factors that cannot be included in this model and are our limitations.

Conclusions: FQ resistance occurred concurrent to increased prescription of FQs. Restriction of oral FQ use may be necessary to halt this trend of drug resistance.

PS 1-159

EFFICACY EVALUATION OF AUTOMATIC HYDROGEN PEROXIDE DRY MIST SYSTEM ON HEALTHCARE ENVIRONMENT DISINFECTION

Ming-Chin Chan^a, Ching-Mei Chang^a, Tzu-Feng Huang^a, Feng-Yee Chang^b. ^aInfection Control Office, Tri-Service General Hospital, Taipei, Taiwan;

^bDepartment of Internal Medicine, Tri-Service General Hospital, Taipei, Taiwan

Purpose: It is important to sufficiently decontaminate the healthcare environment to prevent the spread of drug-resistant bacteria like methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococcus (VRE), gram-negative rods (GNR) and etc. When the environment is polluted with pathogen, it will become the main source of hand transmission and cross-infection of healthcare workers. Traditionally, the decontamination process was done through manually wiping equipment and facilities with bleach in the wards. However, the recurrent outbreaks or group infections suggested that the traditional disinfection protocol may leave some areas untreated. The study therefore is aimed to investigate the decontamination efficacy of automatic hydrogen peroxide (H₂O₂) dry mist after patient's discharge from hospital.

Methods: By replacing traditional bleach cleaning, we used GLOSAIR™ (Johnson & Johnson) automatic H₂O₂ dry mist to decontaminate the ward after patients discharged from hospital. We collected 10 high touch objects before/after decontamination in the negative pressure isolation intensive care unit (ICU), burn center (BC) and bone marrow transplant ward respectively in a medical center of northern Taiwan.

Results: We performed GLOSAIR™ decontamination for ten cycles in ICU, four cycles in BC and one cycle in bone marrow transplant ward after patient discharged. Culture positive for bacteria before/after decontamination was 80%/6% for ICU, 60%/2.5% for BC, and 80%/0% for bone marrow transplant ward. There were diversified bacteria before decontamination, including MRSA, VRE, *A. baumannii* and etc., only CONS was discovered after decontamination.

Conclusions: According to the results, we concluded that the survival of pathogen was dramatically decreased and only few sample site of CONS were discovered after decontamination of H₂O₂ vapor. Therefore, using automatic H₂O₂ dry mist machine to decontaminate the room was proved to be sufficient.

PS 1-160

EVALUATION OF ANTENATAL GROUP B STREPTOCOCCAL SCREENING

Ya I. Hsiao^a, Chin Ho. Cheng^b, Yi Shun. Chena^a. ^aLaboratory Medicine Department, National Taiwan University Hospital Hsin-Chu Branch, Taiwan; ^bDepartment of Obstetrics & Gynecology, National Taiwan University Hospital Hsin-Chu Branch, Taiwan

Purpose: Intrapartum antibiotic prophylaxis (IAP) is highly effective at preventing early-onset Group B Streptococcal (GBS) diseases among infants born to colonized women if all women undergo routine vaginal-rectal screening for GBS colonization at 35-37 weeks' gestation. Therefore, laboratory accurate in-time GBS identification/drug susceptibility reports and a retrospective analysis of each pregnancy could help the clinicians make adequate anti-GBS regimens.

Methods: 1421 clinical specimens (from Oct.,2013 to Oct.,2014) were collected and examined according to the guidelines designated by Taiwan HPA. The maternal colonization rate (by native /foreign/age groups) and drug susceptibility result for GBS isolates were thus analyzed. Besides, 266 cases of all have been pregnant 2 times during the past 6 years, the retrospective reviews of previous GBS screening data for each pregnancy were also made to estimate its value in Taiwan.

Results: Total maternal colonization rate of GBS was 22.7%, with 22.6% for native, and 25.0% for foreign group respectively. The age range of women was 17 to 47. Four age groups were categorized and showed with respective isolation rate as followed: 17-20 yr (25.0%), 21-30 yr (20.5%), 31-40 yr (23.3%) and 41-47yr (27.0%). The drug-susceptibility rate of 321 GBS strains was as below: Penicillin(99.4%), Ampicillin(99.7%), Vancomycin (100%) , Erythromycin (53.9%) and Clindamycin(50.2%). The retrospective survey among 266 subjects showed culture rate: constant negative (62.8%), positive conversion (14.7%), constant positive (8.3%), and negative conversion (14.3%) between 2 pregnancies; indicating 63.3% mothers who tested positive for GBS during previous pregnancy might test negative in current pregnancy.

Conclusions: Maternal colonization rate complies with the report (10-30%; CDC), without racial difference. It's probably due to relatively lower immunity to express higher GBS isolation rate for women of the lowest/highest age group. The retrospective analysis and drug susceptibility test imply the necessity of antenatal GBS screening: antibiotic treatment might reduce the chances of developing infections.